PROJECT DESCRIPTION
GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC SIGNAL AT THE INTERSECTION OF ROSEWICK ROAD AT RADIO STATION ROAD IN CHARLES COUNTY MD.
ROSEWICK ROAD IS CONSIDERED TO RUN IN AN EAST/WEST DIRECTION.

INTERSECTION OPERATION

AN NEMA "6" SIZE BASE MOUNTED CABINET WITH CONTROLLER SHALL BE INSTALLED AT THIS LOCATION. THE INTERSECTION WILL OPERATE IN A FULLY ACTUATED MODE USING 4 NEMA PHASES. THERE WILL BE AN EXCLUSIVE/PERMISSIVE LEFT TURN PHASE FOR WESTBOUND MOVEMENT OF ROSEWICK ROAD. THE ROSEWICK ROAD THROUGH MOVEMENTS WILL OPERATE CONCURRENTLY WITH A CONCURRENT PEDESTRIAN MOVEMENT ACROSS THE SOUTH LEG OF THE INTERSECTION. THE RADIO STATION ROAD MOVEMENT WILL OPERATE ALONE.

SPECIAL NOTES

1. THE CONTACT PERSONS FOR THIS PROJECT ARE AS FOLLOWS:
CHARLES COUNTY CONTACTS
MR. ARTHUR SWAN - PROGRAM MANAGER
PHONE: (301) 885-1314 EXT 2314
MD-SHA CONTACTS
MR. RICHARD L. DAFF, SR. CHIEF TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7630
MR. EDWARD RODENHIZER, SUPERVISOR, SIGNAL OPERATIONS
PHONE: (410) 787-7652

POWER COMPANY:
SMECO's Contact Person:
Roni Johnson
15035 Burnt Store Road
Hughesville, MD 20637-1937
301-396-4902

WMS# 93438

2. ALL INTERNAL CABINET WIRING SHALL BE PERFORMED BY THE SHA SIGNAL SHOP. CONTRACTOR SHALL CONTACT ED RODENHIZER 72 HOURS PRIOR TO CONSTRUCTION.

3. APS WILL FUNCTION AS FOLLOWS:

FOR RADIO STATION ROAD
A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON MESSAGE WILL BE "WAIT TO CROSS RADIO STATION at ROSEWICK, WAIT".
B. WHEN WALK PHASE BEGINS, THE AUDIBLE SOUND WILL BE A RAPID TICK, WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

4. THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT 410-787-7631 TO ARRANGE FOR THE PHONE DROP INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER WITH THE NEAREST STREET NUMBER, ZIP CODE, AND TELEPHONE NUMBER.

EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY THE ADMINISTRATION.
NONE.

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.

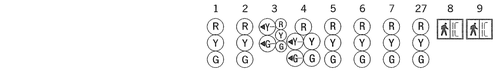
QUANTITY	UNITS	DESCRIPTION
LUMP SUM	LS	MAINTENANCE OF TRAFFIC
LUMP SUM	LS	MOBILIZATION
1	EA	10 FT. STEEL PEDESTAL POLE WITH BREAKAWAY COUPLING (MD 818.16-01) BASE
1	EA	14 FT. STEEL PEDESTAL POLE WITH BREAKAWAY TRANSFORMER BASE
1	EA	27 FT. STEEL MAST ARM POLE WITH 70 FT. MAST ARM
1	EA	27 FT. STEEL TWIN MAST ARM POLE WITH 50 FT. AND 60 FT. MAST ARMS
2	EA	20 FT. LUMINAIRE ARM
2	EA	250W HPS LAMP AND LUMINAIRE
1	EA	STANDARD S.H.A. TRAFFIC SIGNAL CONTROLLER, BASE MOUNTED NEMA "S" CABINET WITH VIDEO DETECTION INTERFACE, AND ONE (1) FOUR-CHANNEL LOOP DETECTOR AMPLIFIER [Note: CONTROLLER AND CABINET SHALL BE PURCHASED FROM ECONOLITE AND DELIVERED TO THE MD-SHA SIGNAL SHOP FOR WIRING AND TESTING. CONTACT MR. ED RODENHIZER (410) 787-7650]
2	EA	VIDEO DETECTOR CAMERA (TERRA)
725	LF	VIDEO DETECTOR CAMERA CABLE
4	EA	NON-INVASIVE PROBE (SET OF 3) WITH 1000 FT. LEAD-IN CABLE
2	EA	AUDIBLE PEDESTRIAN PUSHBUTTON ASSEMBLY WITH PUSHBUTTON SIGN
1	EA	APS 2-WIRE CENTRAL CONTROL UNIT
5	EA	12 IN. 3-SECTION LED SIGNAL HEAD - MAST
1	EA	12 IN. 3-SECTION LED SIGNAL HEAD - POST TOP
1	EA	12 IN. 5-SECTION LED SIGNAL HEAD - MAST
1	EA	8 IN./12 IN. 5-SECTION LED SIGNAL HEAD - MAST
1	EA	16 IN.1-SECTION, 1-WAY LED (COUNTDOWN) PEDESTRIAN SIGNAL HEAD - POST TOP
1	EA	16 IN.1-SECTION, 1-WAY LED (COUNTDOWN) PEDESTRIAN SIGNAL HEAD - SIDE POLE
2	EA	30 IN. x 36 IN. R3-5 REGULATORY SIGN - MAST ARM
4	EA	20 IN. x VAR. D-3(1) SIGN - MAST ARM
1	EA	32 IN. x VAR. D-3(1) SIGN - MAST ARM
4	EA	24 IN. x 24 IN. W16-14(1) "NEW" SIGN - GROUND MOUNT
4	EA	48 IN. x 48 IN. W3-3 SIGN - GROUND MOUNT
4	EA	20 IN. x VAR. D-3(2) (Blk on Y) SIGN - GROUND MOUNT

QUANTITY	UNITS	DESCRIPTION
4	CY	TEST PIT EXCAVATION
11	EA	HANDHOLE
50	LF	1-CONDUCTOR CABLE (NO. 8 AWG)
430	LF	2-CONDUCTOR TRAY CABLE (NO.12 AWG)
220	LF	2-CONDUCTOR CABLE (NO. 14 AWG)
340	LF	5-CONDUCTOR CABLE (NO. 14 AWG)
1025	LF	7-CONDUCTOR CABLE (NO. 14 AWG)
330	LF	BARE COPPER GROUND WIRE (NO. 6 AWG)
40	LF	2 IN. PVC CONDUIT [SCHEDULE 80] - TRENCHED
590	LF	3 IN. PVC CONDUIT [SCHEDULE 80] - TRENCHED
225	LF	3 IN. PVC CONDUIT [SCHEDULE 80] - BORED
20	LF	4 IN. PVC CONDUIT [SCHEDULE 80] - TRENCHED
410	LF	4 IN. PVC CONDUIT [SCHEDULE 80] - BORED
14	CY	CONCRETE FOUNDATION FOR TRAFFIC SIGNAL EQUIPMENT
6	EA	GROUND ROD -3/4IN. X 10 FT. LENGTH
1	EA	EMBEDDED ELETRICAL SERVICE PEDESTAL (100 AMPS)
90	LF	24 IN. WHITE THERMOPLASTIC PAVEMENT MARKING - STOP LINE
144	LF	4 IN. x 6 IN. WOOD SIGN SUPPORTS
4	EA	REMOVE EXISTING SIGN - GROUND
2	EA	ADA PEDSTRAIN RAMP (MD-SHA STD. 655.11) [to include removal of existing material and installation of cast in place Detectable Warning Surfaces]
160	SF	4 IN. CONCRETE SIDEWALK [to include removal of existing material]

GENERAL NOTES

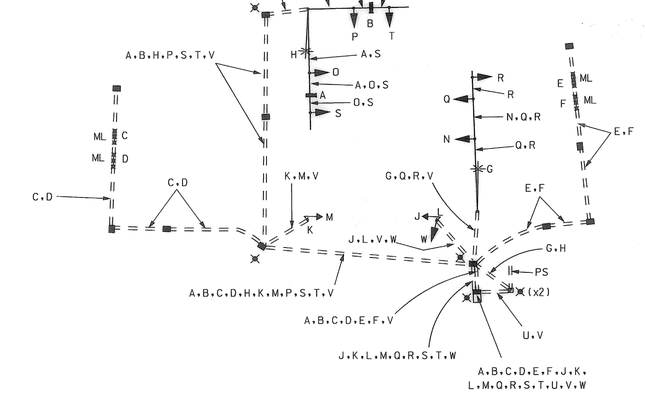
1. VIDEO CAMERA LOCATION/ALIGNING SHALL BE COORDINATED WITH THE SHA ENGINEER.
2. THE CONTRACTOR SHALL VERIFY ALL PROPOSED POLE AND CABINET LOCATIONS PRIOR TO INSTALLATION.
3. PAVEMENT MARKINGS DETAILED ARE PROPOSED AND ARE TO BE INSTALLED BY THE CONTRACTOR IN ACCORDANCE WITH MD-SHA STANDARDS. ALL OTHER PAVEMENT MARKINGS ARE TO BE CONSIDERED AS EXISTING.
4. GEOMETRICS SHALL BE CONFIRMED PRIOR TO THE INSTALLATION OF SIGNAL EQUIPMENT. ALL TRAFFIC SIGNAL FOUNDATIONS SHALL BE INSTALLED AT FINAL SIDEWALK OR CURB GRADE FOR CLOSED SECTIONS. HIGHEST ROADWAY PROFILE GRADE FOR OPEN SECTIONS. TO MEET CLEARANCES AS SPECIFIED IN MD 816.03, MD 818.01, MD 818.02, MD 818.04. THE CONTRACTOR SHALL VERIFY ULTIMATE GRADES PRIOR TO THE INSTALLATION OF ALL SIGNAL EQUIPMENT.
5. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC AND ARE NOT TO BE CONSIDERED COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL UTILITY COMPANIES PRIOR TO CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATED IN THE FIELD. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC SIGNAL EQUIPMENT WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE PROJECT ENGINEER IMMEDIATELY.
6. PUSHBUTTONS ARE TO BE LOCATED SO THAT THEY CAN BE ACTIVATED BY A PERSON IN A WHEELCHAIR REACHING LESS THAN 18 IN. FROM A 60 IN. x 60 IN. LEVEL LANDING AREA WITH A CROSS SLOPE OF LESS THAN OR EQUAL TO 2%.
7. THE 10 FT. SEPARATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM FACE OF PUSHBUTTON TO FACE OF PUSHBUTTON, NOT CENTER TO CENTER OF POLE.
8. PUSHBUTTON ARROWS ARE TO BE PARALLEL TO THE CROSSING FOR WHICH THEY ARE INTENDED.
9. THE LOCATION OF ACCESSIBLE PEDESTRIAN SIGNAL PUSHBUTTONS MUST MEET LOCATION REQUIREMENTS OF MUTCD SEC. 4E.09 & FIG 4E-2 AND THE NCHRP PUBLICATION. "ACCESSIBLE PEDESTRIAN SIGNALS: GUIDE TO BEST PRACTICE". IF NOT MET, THE CONTRACTOR IS TO STOP WORK ON PUSHBUTTON LOCATIONS UNTIL A DESIGN WAIVER IS OBTAINED, APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.
10. CONTRACTOR TO UTILIZE THE FOLLOWING MD-SHA TRAFFIC CONTROL TYPICALS DURING CONSTRUCTION: MD 104.04-01; MD 104.04-03; MD 104.04-05
11: DETECTABLE WARNING SURFACES SHALL BE INSTALLED AS MD-SHA STANDARD MD-655-40. AND CONFORM TO MD-SHA STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS SECTION 611.

Phase Chart



PHASE 2 AND 5	R	R	↤GG	↤GG	G	R	R	R	DW
5 CHANGE	R	R	↤YG	↤YG	G	R	R	R	DW
PHASE 2 AND 6	G	G	G	G	G	R	R	R	WK
PED CLEARANCE	G	G	G	G	G	R	R	R	FLDW
2 AND 6 CHANGE	Y	Y	Y	Y	Y	R	R	R	DW
PHASE 4	R	R	R	R	G	G	G	G	DW
4 CHANGE	R	R	R	R	Y	Y	Y	Y	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	DARK

Wiring Diagram



KEY

- A, B — VIDEO DETECTOR CABLE
- C, D, E, F — NON-INVASIVE MICRO-LOOP DETECTOR LEAD-IN CABLE
- G, H — 2-CONDUCTOR TRAY CABLE (NO. 12 A.W.G.)
- J, K — 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- L, M, N, O, P — 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- Q, R, S, T, W — 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- U — 1-CONDUCTOR (NO. 8 A.W.G.) (2 PIECES) FOR TRAFFIC SIGNAL ELECTRICAL SERVICE
- V — BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
- PS — PROPOSED UNDERGROUND ELECTRICAL SERVICE BY SMECO
- ⊠ — PROPOSED GROUNDING ROD
- ML — MICRO-LOOP DETECTOR (NON-INVASIVE)

CHARLES COUNTY GOVERNMENT APPROVAL	
Permit No.	
Signed	
Date	
Expires on:	
Remarks or Conditions:	

BW095M81
Rosewick Road @ Radio Station Road

STATE OF MARYLAND
WING-YU CHEN
No. 33316
PROFESSIONAL ENGINEER

Professional Certification. I certify that these documents were prepared or approved by me, and that I am a duty licensed professional engineering under the laws of the state of Maryland.
License No. 33316 Expiration Date 7/13/14

The Traffic Group, Inc.
Suite H
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"Merging Innovation and Excellence"®

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

ROSEWICK ROAD AT RADIO STATION ROAD
LaPlata , MD

GENERAL INFORMATION PLAN

SCALE N/A DATE July 3, 2012 CONTRACT NO. -

DESIGNED BY J. Dirndorfer/TTG
DRAWN BY J. Dirndorfer/TTG
CHECKED BY -
F.A.P. NO. N/A

COUNTY CHARLES
LOGMILE 08011401.64
TIMS NO. L501
TOD NO. N/A

TS NO. 4855-GI | DRAWING SG - 02 OF 02 | SHEET NO. 2 OF 2

PLOTTED: Tuesday, July 03, 2012 AT 11:10 AM
FILE: F:\2011\2011-0711\dsn\Signal Plan.dgn

PGM#VCI 12-0012

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BY: FBrownley